tumours, he thinks that the most expeditious and the best treatment would be *removal by surgical operation.*

Actinomycosis appears to have been first discovered by Italian veterinary surgeons and accurately described by Revolta in 1868. Bollinger rediscovered it, and named it in 1877, and, in the following year, Israel described the first case in man.

C. B. KEETLEY (London).

OPERATIVE SURGERY.

I. New Method of Amputation at the Ankle-Joint. By Prof. A. C. TAUBER (St. Petersburg, Russia). After having criticized the methods of operation at the ankle-joint, introduced by Syme, Malgaigne, Roux, Sedillot, Le Fort and other surgeons, Prof. T. has demonstrated in the first congress of the Russian physicians his own method which is a modification of Pirogoff's. Fig. 1 shows a stump made according to Tauber's method. His operation Prof. T. performs as follows.

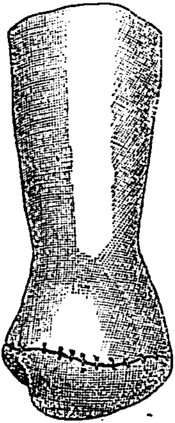

FIG. 1. STUMP PRODUCED BY TAUBER'S METHOD.

He begins an incision at the attachment of the tendo Achillis (A, Fig. 2) and carries the knife forward, below the malleolus, to the Chopart's line (B, Fig. 2), and then across to the dorsum of foot, down, (from B to C, Fig. 3); on having reached the middle line on the plantar surface (D, Fig. 2), the knife is carried backward to the heel and then upward to the starting point (D E A, Fig. 2). In this *first stage* of operation Dr. T. cuts the skin and other soft tissues to the very bones.

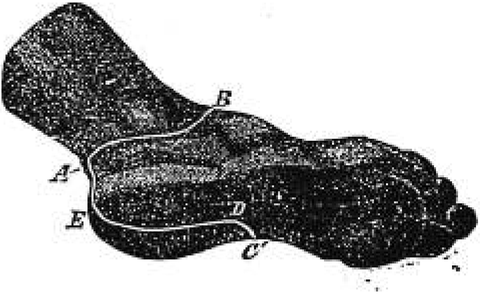

FIG. 2 LINE OF INCISION ALONG OUTER SIDE OF ANKLE.

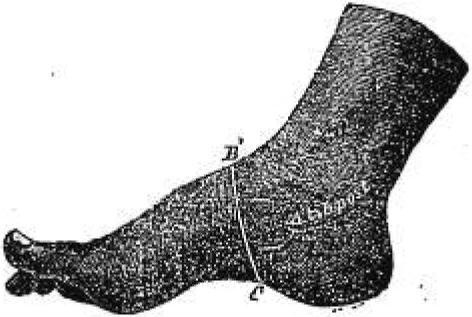

FIG. 3. LINE OF INCISION ALONG INNER SIDE OF ANKLE.

In the *second stage* Prof. T. opens the ankle-joint in the usual manner, that is, he cuts ligaments in this order, lig. fibulare-tali post., lig. fibulare calcaneum, and lig. fibulare-tali ant.; then arkr. lig., and at last the deltoid lig.

In the *third stage* Dr. T. dissects out the astragalus and cuts off the foot in the Chopart line. While an assistant firmly holds the os calcis by forceps, Prof. T. saws off the external half of the bone, in the line corresponding to the one first made in the skin (B C Fig. 3). Thus the interior flap of the heel contains a thick, almost square part of the os calcis and the poster. tibial artery not injured (see Fig. 4).

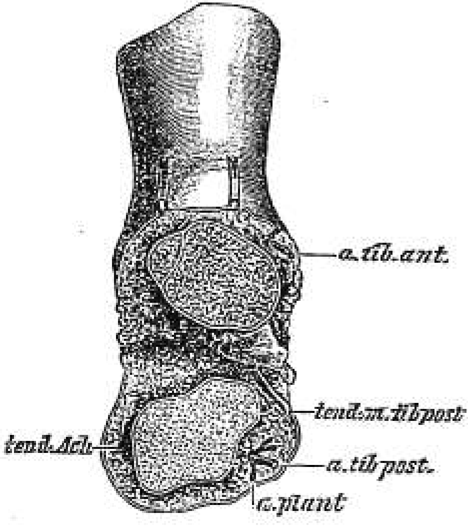

FIG. 4. THE FLAP COMPLETED.

In the *fourth stage* Prof. T. saws off the malleoli, puts ligature on the arteries, severs and adjusts the two surfaces of the bones to each other, which is easily done without any extension of the tendo Achillis, as can be seen in Fig. 4. Lastly the wound is united with sutures.

The advantages of this method consists in the following points: The poster. tibial artery remains intact, saved for the stump (see Figs. 3 and 4); the tendo Achillis and bursa mucosa retro-calcanea remain uninjured, and the surfaces of the bones sawn off will correspond to each other (see Fig. 4), thus favoring the process of ossification.

In 1877, during the Turko-Russian war, when there were many soldiers with frozen feet, Prof. Tauber tried his method with gratifying results. He believes that in his method preserving the poster. tibial artery there is far less danger from the necrosis of flaps than in the other methods. As to the technique of the operation Tauber's method seems to be less complicated than those of the surgeons mentioned above. However, experience is needed to prove all that Prof. T. claims for his method.—*Vratch* (St. Petersburg). No. 5. Jan. 30, 1886.

P. J. POPOFF (Brooklyn).

VASCULAR SYSTEM.

I. Laparotomy in the Treatment of Spontaneous Gluteal and Sciatic Aneurism with a Report of Three Cases, in One of which Both Internal Iliac Arteries were Tied at the Same Time for Double Gluteal Aneurism of Simultaneous Development. By F. S. DENNIS, M.D., (New York). (1) Laparotomy in no way increases the dangers of the operation of ligature of the internal iliac artery. (2) Laparotomy prevents a series of accidents which have occurred during the performance of the operation of ligature of this artery by the older methods. Among these accidents may be mentioned the division of the circumflex and epigastric arteries, wounding the vas deferens, including the ureter in the ligature,puncture of the iliac or circumflex veins, tying the genital branch of the genito-crural nerve, stripping up and tearing the peritoneum, injury to the subperitoneal connective tissue and other accidents of a like nature. (3) Laparotomy enables the surgeon to apply the ligature at a point of election, and affords him an opportunity of obtaining information as to the exact extent of disease in the main arterial trunk. (4) Laparotomy averts the dangers which were likely to follow ligature